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ABSTRACT

The Values Based Objectives Planning System is a method of educational planning that will achieve quality education, according to the author, by expressing goals and objectives as values instead of as behaviors. The author first defines planning as the preparation in visual form of a conceptual model of a thing, operation, or event. She then discusses organizational planning, in which she includes analysis, planning, decision-making, and researching. She distinguishes planning from both decision-making and problem-solving but notes that planning and decision-making together constitute leadership. Her description of how to do Values Based Objectives (VBO) Planning covers the determination of a plan's scope, the characteristics of a good plan, and the five steps in VBO planning, including planning for success and evaluation, considering alternate means, planning for implementation and operation, and allocating resources. The author discusses the distinctions between goals and objectives and between values based objectives and behavioral objectives. Her three rules for writing values based objectives state that the objectives should express valued achievements or attitudes, not behaviors; should be qualitative, not quantitative; and should be expressed as results, not means or processes. (Author/RW)

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A VALUES BASED OBJECTIVES PLANNING SYSTEM: PLANNING FOR QUALITY EDUCATION

By
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Introduction and A Point of View

We have good reason to believe that planning is a significant factor in our achievement oriented North American society. We can get some feeling for the importance planning has assumed in our lives by reminding ourselves of the many names we have for "a plan" - blueprint, outline, diagram, pattern, design, scheme, sketch, proposal, chart, budget, strategy, schedule, script. We may even suspect that planning, or at least our intense concern with planning is a North American phenomenon. We may suspect that North Americans, generally, believe that planning can greatly increase the probability of achieving desired aims.

Actually, I am sure I do not have to convince you of the importance of planning; everyone pretty well agrees that it is a vital element of an organization's business, as well as an important factor in our personal lives. But who should plan; toward what goals; how to maintain both values and rationality in planning; how do you plan effectively; what are the elements (pieces) of a good organizational plan; what is planning anyway.

Let me try to clarify first what planning is. I could try to do that by looking at definitions of planning in dictionaries and in organizational literature. The Oxford dictionary tells us, for example, that "planning is devising or designing something; or arranging some action to be carried out beforehand."

Coombs gives us a more detailed statement, "Educational Planning (is) the application of rational, systematic analysis to the process of educational development with the aim of making education more effective and efficient in responding to the needs and goals of its students and society (Coombs, 1970, p. 14.)" Miklos also offers us a thoughtful, detailed description of planning.

> Planning: ...That dimension of the decision process which involves (1) the identification and refinement of alternative goals; (2) the development of alternative means for achieving selected goals; (3) the identification of the most promising (most efficient and effective) means. Implementation processes are excluded; however, planning could also include: (4) monitoring the extent to which goals have been achieved, and (5) on the basis of the information gained, revising means and possible goals or targets. (Miklos, 1972, pp. 5-7.)

Each of those statements offers insights into the planning process; each is satisfying in many respects. Most appealing, however, is a definition proposed by Anderson and Bowman, derived from Dror's earlier definition, "Planning is the process of preparing a set of decisions for action (Anderson and Bowman, in Adams, 1964, pp. 4-46.)" Anderson and Bowman, and Dror, both emphasize "set" as a key word in their definitions, "set" implying "integrally related."

Although that definition is more precise and conceptually clear than many proposed, I find it still somewhat unsatisfying. A group of decisions can be seen as a "set," that is, integrally related, without having been planned. They can, and often do, arise naturally out of circumstances, one decision leading naturally and relatedly to another. The whole is not envisioned before the stream of decisions commences; the "set" of decisions, though recognizable after the fact, cannot be called a "plan." Intuitively, we know that a plan is something more than a "set of decisions." A plan has an emotional pull, it pulls us toward something in a way that a "set of decisions for action" does not.

Let us start, therefore, from our different types of plans, the outline, blueprint, design, and formulate our own definition, discover what is missing in previous definitions. What do all these "plans" have in common?

First, they all have visual form. They are all presented visually in some arrangement that identifies parts, and relationships between parts. Even an outline has a visual representation of relationships, does it not. Immediately we begin to "see" the total result envisioned by the planners.

Second, plans present the "whole" in brief. Each plan is a scaled down version of some whole. That is, the relationships of separate parts to each other are presented on a scale of sorts - time (a schedule), size (a blueprint), quantity (a budget), inclusion (an outline), distance (a map). We are engaged actively because we "see" the end product; the scaled relationships instruct us in how to proceed.

Of course, there are different scales equally relevant to any representation. An architect's blueprint of a house and a layman's drawing are not drawn by the same scale. The prospective owner incorporates the intuitive logic of a scale of value; the size and arrangement of rooms may reveal the self-image. The architect draws by the learned logic of the scale of meters and centimenters, interpreting within given constraints the values prescribed.

Third, the "whole" that a plan represents may be a thing, an operation, or an event.

Fourth, plans are conceived in the mind, in the minds of many perhaps, but they are conceptual, they are ideational. Plans do not grow like Topsy; they are ideas of a whole thing, an end result conceived as a whole. By back-tracking the "whole" is designed in its necessary parts in a scaled down form, a representation, tested in the abstract before being produced in fact.

That is, to state it as a definition, a plan is a conceptual model of a thing, an operation, or an event. Planning, then, is the process of preparing a conceptual model, a visual representation in some scaled form, of a thing, an operation, or an event.

A model, of course, is a set of hypotheses, a prediction. A model has a logic of its own; it hypothesizes (predicts) that certain elements (things or actions) arranged in a particular set of relationships will produce a specified outcome. A model invites us to try it out in reality. A plan leads us to try to achieve an envisioned result, and hypothesizes the means. If a plan is accepted as a set of means-ends hypotheses, we may change and modify our hypotheses as circumstances change, but we maintain our focus on the end intended. Plans lead us into action.

A budget is a plan - a model of the program established for a period of time. It presents conditions conceived of as necessary to the well-being of an organization; it scales conditions as to their value by the allocation of resources predicted to be necessary to produce those conditions.

A curriculum is a plan - a model of an educational program. It represents the kinds of learning desired in a particular school setting, the emphasis on each (scale of time), and the predicted experiences, studies, and conditions (the means) envisioned to achieve those kinds of learning.

I make quite a point of this matter, of the fact that plans are conceptual models of some whole, some end product, and that they present parts of a whole scaled to the whole, because much has been written and said about planners being ivory towered dreamers. Planners may be dreamers; plans certainly represent visions of desired states. Plans are conceived in the mind. A plan, a conceptual model, is general or abstract, and at the

same time is concrete and specific. The process of planning requires both analysis and synthesis; the whole must be detailed in its parts, and the parts must compose the whole, the parts must fit. Through the plan the observer must "see" the whole, "see" the feasibility of means and "see" the probability of achieving the whole by those means. Planners could say of themselves, paraphrasing Descartes, "I care, therefore, I plan. I care about how things turn out, therefore, I plan carefully with the end always in view."

But, though administrators are planners, they are also implementers and researchers. As planners they hypothesize and predict, and they design and pretest hypotheses in some represented form. As decision makers they say "yes" or "no" to the plan proposed, as well as to all the elements of the plan. As executives they put plans into effect, and as researchers they test and assess plans in reality.

We know full well that no predictions are perfect, that all plans must be modified as they are implemented. A plan gives us two safeguards. It allows us to test every real operation, every event, against its desired whole the ideal outcome we had conceived, before risking resources and results in reality. And it permits us to test <u>against the ideal</u> as we implement, and to adjust to the reality that develops without losing the concept of the whole.

PLANNING IN ORGANIZATIONAL PERSPECTIVE

Much has been written about planning for organizations generally and for education specifically. Economists, social theorists, and government agencies are all concerned with planning for education.

Propositions of social theorists such as Schultz (1963), Cheal (1963), and Venn (1970) that education is a tool for national development are familiar. Other analysts such as Coleman (1966), Benson (1968), and Hack and Woodward (1971) consider educational planning in terms of sources of funding

and the allocation of funds. Such propositions base educational planning in the values to society of educated minds.

Provincial and national agents lay out the broad scope of education systems. They establish mandates and budgets that direct us into particular educational paths - toward equal opportunity in education, toward education for the gifted, toward universal post-secondary education, toward bilingualism.

As practical administrators, however, when we study the literature to attempt to make ourselves better planners we find a confusing picture. As we read we discover that descriptions of "planning," "decision making," "systems analysis," "change strategies," "problem solving," and even Dewey's description of "thinking" all sound very much alike. A recent analysis of 32 such descriptions revealed that the steps or actions commonly included, regardless of which process was being presented are the following (Burns, 1978, p. 5):(1)

1. (Identification) (clarification) of (needs) (goals) (problems) (objectives)(2)
2. (Documentation) (getting information)
3. Identification of alternative (strategies) (tools) (methods)
4. (Listing advantages and disadvantages of each set of alternatives) (analyzing alternatives)
5. Deciding on action
6. Arranging for (implementation) (test) (execution)
7. Determining performance effectiveness

Statements such as those considered propose, in effect, an orderly or systematic approach to undertaking activities or operations having complex interrelationships. It seems reasonable to believe that system or order will maximize the logical, means-ends, dimension of the whole. The set of activities listed above covers a more global phenomenon than planning,

decision making, or problem solving, the phenomenon of undertaking systematically to maximize the "effectiveness" of any operation. It is my view that within an organization those activities approximate the broader more general phenomenon of administration. In fact, Simon, Griffiths, and others have argued quite convincingly that administration is decision making (or decision making is the heart of administration) on the basis that such a set of activities describes decision making and comprises the activities inhering in administration.

I agree that "systems analysis," "planning," "decision making," and "problem solving" are not separable or discrete, and cannot take place in isolation from each other. The terms are confusing in organizational literature. Common sense tells us, however, that the processes they name are definitely not the same. It can be profitable for further study of organizations, therefore, to agree that identifiably different phenomena exist. In this paper I will attempt to differentiate between the phenomena generally associated with the terms under consideration, and will propose a paradigm depicting interrelationships among them.

Analyzing, planning, and decision making are three of the processes fundamental to every organization. Formalized and systematized or not depending on specific purposes and aims, they are keys to the vitality and development of all organizations. Other processes are equally fundamental; researching as exemplified by Operations Research is a prime example.

I cannot deal adequately in this paper with all related processes. How to analyze an education system from the criteria of quality of learning and the quality of living desired could be the subject of lengthy consideration. Considerable attention has been paid to systems analysis for education in recent years. Several good, relevant references are included in the bibliography.

Researching as an administrative process has received less attention. We need to keep clear in our minds that operations research applied to an education system is not "educational research" in the more common sense. How to research your own operation systematically will be the subject of much discussion as we move into uncertain futures. Seeking alternative operational modes and hypothesizing effectiveness is an intuitive administrative process; it will become a more systematic process with the collection of data and data analysis.(3)

I concluded above that descriptions of systems analysis, planning, decision making, problem solving, and indeed operations research include many of the same steps. Now we can note that those steps are, in essence, analysis, planning, decision making, and researching, four basic administrative processes.

Rationality in administration cannot exist without all related processes existing formally and systematically. Attempts to describe any one process as rational must take all relevant processes into account. My discussion of planning will also interrelate those four processes. First, however, I would like to express more clearly the distinctions I see between planning and problem solving, and between planning and decision making.

Decision Making and Planning Considered

Definitions of decision making are relatively consistent, there being general agreement that it involves making choices among alternatives. Discussions of decision making come to us from two quite different perspectives, however. From one perspective, as suggested above, we read that decision making is a process that includes essentially the same steps as are included in planning, problem solving, systems analysis, change strategy, or organizational development. Such descriptions tend to come

out of the mathematics, scientific management, and management literature.

From another perspective we are presented propositions, questions, and research findings concerned with "participation in decision making" (who should participate; in what decisions; how much participation; participation structure) and "factors that influence decisions" (psychological or personal factors; power and influence; social relationships; negotiations; conflict; bargaining; values effected in decisions.) These discussions tend to come from the political science, socio-political perspective.(4)

By such considerations, "decision making" appears to be comprised of three basic steps or activities, namely:

1. Gathering or collecting possible alternatives for choice.
2. Rank-ordering alternatives by individuals or by groups on personal sets of values or priorities.
3. "Counting" or "weighting" the choices or priorities of various individuals or groups.

The decision making process can be made systematic. Social and political groups establish by law or custom systems for carrying out activities one and three above, collecting sets of alternatives, and weighting the separate choices of individuals (from no weight in a dictatorship to equal weight by ballot.) Organization charts, constitutions, labor contracts, codes of laws all attempt to systematize the decision making process. They identify who shall make what decisions, in what manner members of a group may be involved, and by what method they may influence a decision. They attempt to make objective, even rational, a very subjective process, the process of setting priorities on values held.

A Case Study of Planning and Decision Making

A true account of an operation undertaken during World War II gives an excellent case illustration of the processes of planning and decision making. This story, Cockleshell Heroes by C. E. Lucas-Phillips, details

the planning, the establishment, the development, and the operation of one small unit of the British forces, the RMBPD - The Royal Marine Boom Patrol Division - from its conception through an infiltration operation. It clearly distinguishes between "plan" and "decision."

The RMBPD under Lt. Hassler was given the task of developing small boats, equipment, and techniques for deep infiltration into enemy held waters, specifically Bordeaux Harbour, for the purpose of putting an end to enemy blockade running between Germany and Japan. When the unit was ready Lt. Hassler prepared a plan for infiltration involving twelve men in six "cockles." He proposed to lead the exercise. The "cockles" would be launched from a submarine in the Channel under cover of night. The exercise would entail three nights of travel by cockle in absolute silence up the Garonne River and three days of "holing up" in enemy territory. The boats and equipment had been specially designed by Lt. Hassler, the men specially trained in tactics and skills. Lt. Hassler presented his plan for the exercise to the Combined Operations Headquarters Staff with Lord Mountbatten as Chief of Staff. The plan was daring and precise in detail, revealing imagination and arduous preparation on the part of Lt. Hassler.

It was agreed that the operation should be undertaken as proposed, and that Lt. Hassler should lead the infiltration force. It was agreed that the operation would be deemed successful if the group successfully mined at least six blockade running ships in Bordeaux Harbour.

The decisions themselves reveal little; they would seem almost axiomatic, coming from the plan and from the purpose for which the RMBPD had been established. The decisions do not reveal the process of decision making. It is that process that gives us insight into the minds of the people involved, and makes very clear that decision making is essentially

a process of weighing values and weighting choices, not a process of maximizing means-ends relationships as is so often proposed.

Agreement that the operation should take place, and that it should be deemed successful if at least six blockade running ships were destroyed was reached by assent of the Joint Chiefs of Staff.

It was seriously questioned, however, whether Lt. Hassler should lead his men. Pros and cons were strongly pressed. All members of the COHQ Staff felt strongly that the risk of losing Lt. Hassler was too great, and that it out weighed his own plea that a leader must lead his men. Finally Lord Mountbatten polled the individual Chiefs of Staff. Each one voted "no." Then Lord Mountbatten said, "Well, much against my better judgment, I'm going to let you go (Lucas-Phillips, 1956, pp. 79-80.)"

The decision making process was, and is always, a personal and interpersonal process, a weighing of values, judgments and perceptions, and a weighting of individual votes. As such it is essentially irrational in character. It cannot be tested for rightness or wrongness; it is not the rational means-ends equation of the planning process.

Once a plan is evident, the outcome desired is evident, and the relationships among means are evident. There are internal criteria by which the process of planning reveals itself and may be judged. The degree to which planning has been rational is quite evident in the plan itself. A decision, however, presents no evidence as to the decision making process, or of the bases of the decision. In fact it is the values-based character of the decision making process, the inescapability of values as the bases of choice, that brings values into planning. The choices made throughout the planning process are based on values expressed as objectives. It is the interaction of choices based in values and planning based in precise hypotheses that brings rationality into decision making and humanity into planning.

Just as it is laws, policies and customs that attempt to regulate or make systematic the process of decision making, it is the process of decision making by which the legislative function is carried out, by which laws, customs, and policies are established. Two processes, planning, the conceptual process, and decision making, the socio-political process, operate as one. These two processes are the processes by which leadership is exercised in a group or organization.

Two Sides to the Coin of Leadership

I would suggest that one of the conditions basic to the effectiveness and vitality of any organization is the condition of effective leadership. It goes without saying that "effective" is a relative term, that what is "effective" for one group or organization may in fact be counter-effective for another. The quality, the source, and the style of "leadership" that would be desirable for one organization might well be undesirable for another.

I would propose further that there are two primary organizational functions directly related to the effectiveness of leadership in any organization, the functions of Direction and Legislation.

By this I mean that the quality, source, and style of the leadership which can arise in an organization is affected by the direction the organization is taking and by the legislation (rules, policies, norms) being established. Similarly, the quality, source, and style of leadership which exists at any particular time in an organization affect the direction the organization takes and the rules and norms (the legislation) it establishes.

Although the functions of Direction and of Legislation within every organization generally become the responsibility of administration, they do not ever in any organization or group reside totally within that set of persons officially designated as administrators. Direction, the function

of moving an organization toward particular ends, aims, and purposes, and Legislation, the function of establishing the rules, policies, and norms by which the organization operates, always function throughout the organization, although degrees of participation in these functions vary greatly from one group to another.

I hold further that a consistent pattern of relationships exists between the functions, Direction and Legislation, and the processes, Planning and Decision making. I propose that Planning mediates, operationally between the function of Direction and LEADERSHIP, and that Decision making mediates between the function of Legislation and LEADERSHIP. Figure 1 illustrates the relationships proposed.

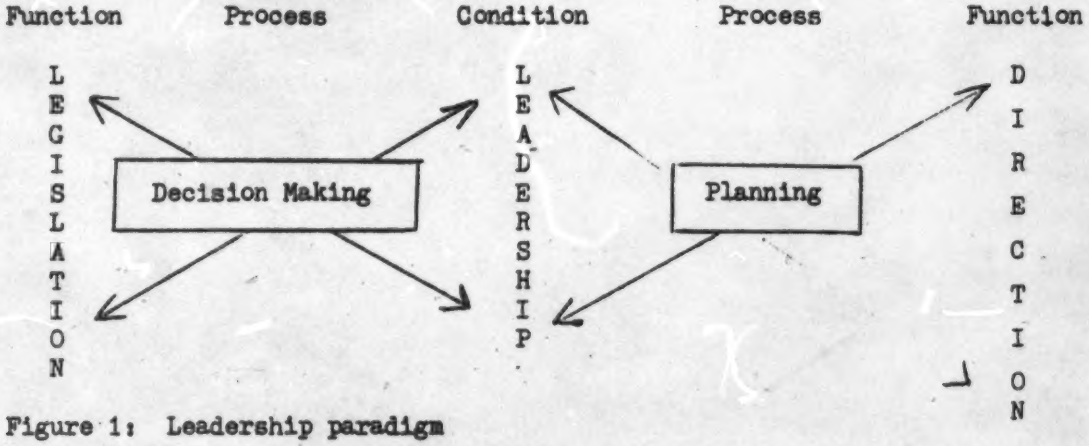

Figure 1: Leadership paradigm

Planning and Problem Solving

At the risk of heresy, I propose that problem solving is an approach to organizational administration, not a fundamental administrative process. As an approach it has received wide acclaim. One is urged constantly to define or identify the problem before acting.

Having a problem to solve can be comforting organizationally. It can bind people together and give them the security of holding common cause with others. Arousing the nation to "solve Chrysler's problem" by dropping in 500 million dollars may be politically astute but it will not make Chrysler

a healthy corporation. Only careful planning and operation will accomplish that.

Problem solving may be appealing because it poses less risk than planning. Problem solving sounds sure and safe; we are in the familiar context of mathematics, knowing that there is a solution, a right answer that will finalize the issue. Believing that we can "solve" problems in education or in any organization is an illusion, of course, but it is a comforting illusion.

Planning creates problems, because it leads to untried grounds by untried paths. Planners, like all dreamers and all leaders, are lonely people. But planning, not problem solving is the way to quality in education as in all activities. Planning sees visions of the future and creates the model of that future given what we have to deal with (the size and shape of a piece of marble if we are sculptors, resources and constraints if we are administrators.)

When we are solving problems we are looking backward in time to what we have lost and need to regain. If we are to look forward to the quality of life we hope to enjoy, we must plan systematically and routinely.

HOW TO PLAN

The Scope of Your Plan

The first step in planning for quality education is to determine the scope of your plan. How large a chunk of the operation are you going to focus on in this particular plan. Like a camera, a plan may focus on the total system, or "dolly up," move closer, to focus on a program or project. Figure 2 illustrates the camera analogy.

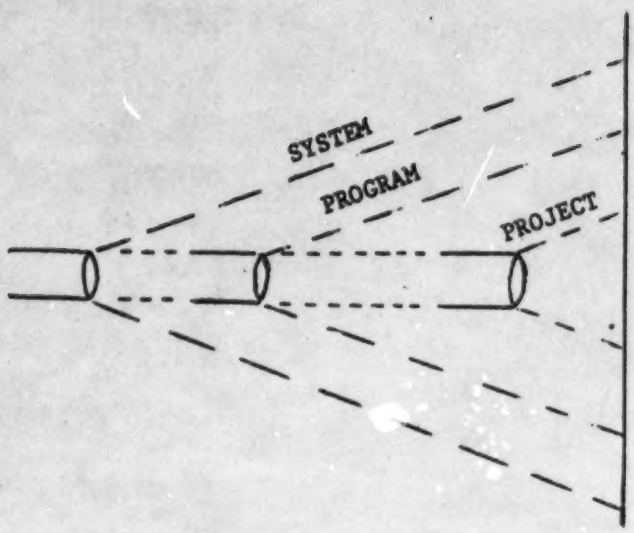

Figure 2. The Scope of Planning

Because I am concerned in this paper with planning administratively, I will use the term "system" to refer to the widest scope, and "project" to refer to the narrowest scope.

I would be inclined to call a plan for secondary maths a program plan. It cuts across the whole school system but is focused on one particular type of desired outcome, maths knowledge and skills. I would, therefore, be inclined to call a plan for secondary trigonometry or calculus a project plan. Each is a piece of the maths program and must fit productively into the larger program plan. Both must harmonize and support the "system" plan.

You can easily see, however, that these labels are quite arbitrary, simply a matter of convenience for placing each plan into the perspective

of the whole. All planning is viewed by some practitioners as project planning since we cannot, realistically, deal with the whole organization at any one time. Our job as school administrators is to make sure that there is a "whole," and that each program or project we plan is tied firmly to the values expressed for the organization. We have seen from the case of Cockle Shell Heroes that a project, a very small piece of the whole, brings the top rank leaders into the situation at crucial decision making points.

We separate planning and decision making for analysis and study, knowing full well there is no real separation possible. In the same way we distinguish "system," "program," and "project" planning for analysis and study.

Regardless of scope, there are characteristics by which we may assess the "goodness" of any organizational plan.

First, a "good" organizational plan is rational. That is, it must be recognizable from an examination of the plan itself (blueprint, outline, proposal) that the "means" incorporated into the plan will, with reasonable probability, produce the "ends," outcomes, or results specified.

Second, a "good" plan must be feasible, or practical. It must be realistic, based on resources available and prepared within constraints that exist. Resources can expand, and constraints can be overcome, but if the plan requires 48 work hours per day, there must be 48 work hours available from the people involved. And if the law requires insurance, insurance must be included in the plan.

Third, a good organizational plan must include four essential sub-plans, and all must be internally consistent with goals and objectives stated. It must include the following parts, consistent with each other:

1. A plan for Success--results or outcomes desired
2. A plan for Evaluation of the project, program or system
3. A plan for Implementation and Operation
4. A plan for Establishment--the allocation of resources

Fourth, the organizational plan must be operable, ready-to-go. A complete, carefully detailed plan is readily changed to adapt to unforseen circumstances. In preparing a careful "model" of an event or operation, you have already considered many alternatives, so you have an "ace up your sleeve" for many contingencies.

Fifth, and most important for quality education, the plan must be created within the framework of values you hold, and must express those values throughout.

I realize that I am flying in the face of convention in proposing that plans, and thereby goals and objectives, should be stated in values terms rather than behavioral terms. We must, of course, observe behaviors in order to make professional judgments about our success in achieving objectives. But behaviors, I remind you, are not our objectives; they are clues to whether we have, or have not, reached our objectives.

Time was when short hair, uniforms, standing to recite, walking in rows were the appropriate behavioral clues to "good citizenship." Today we are not sure whether those behaviors reveal good citizenship, or apathy, or conformity, or simply obedience. Most especially in education we have standards of behavior, but our values are our objectives--our criteria of success.

Systematic Planning

There is a systematic procedure for accomplishing all of this. The first time you work through any system, it may seem complex and unwieldy. Good systems are simple to use, but are difficult to explain. Descriptions of systems may require considerable explanation in order that their general nature can be understood in terms of real situations. It takes some effort at first to interpret the general pattern and apply it to the particular thing you want to plan. If you persist with a palnning system, however,

planning soon becomes routinely easy. You can be freed from many of the organizational problems that arise from unforseen circumstances.

I call the planning system proposed here the Values Based Objectives (VBO) Planning System. The key to planning for quality is that goals and objectives are expressed as values, and consistency is achieved if all parts of the plan also reflect the values expressed in the goals and objectives.

I will assume that you are going to prepare a project plan. Remember that a plan is a model, and that it has visual impact. You are not going to prepare a long academic paper with wordy explanations. Busy administrators need something that can be "seen at a glance," that have a minimum of words. A good organizational plan, if it is visual, can be thought of as a "layout" of an operation, or an event. The following rules will help make planning easy:

1. Use 3 x 5 cards

   They can be easily moved around
   They can be easily torn up and thrown away
   New cards can be easily put into place
   They are small and will encourage you to use few words

2. Use a large blank wall

   White baked-enamel metal is best
   A large tackboard may work reasonably well
   Do not use chalkboard, because then you will not use cards
   and you will hate to erase and rewrite

3. Use small magnets, plastic adhesive, or press pins to pin the cards to your surface so you can move them easily.

Figure 3 shows what your plan will include, and what it will look like when it is complete.

--- Insert Figure 3 here ---

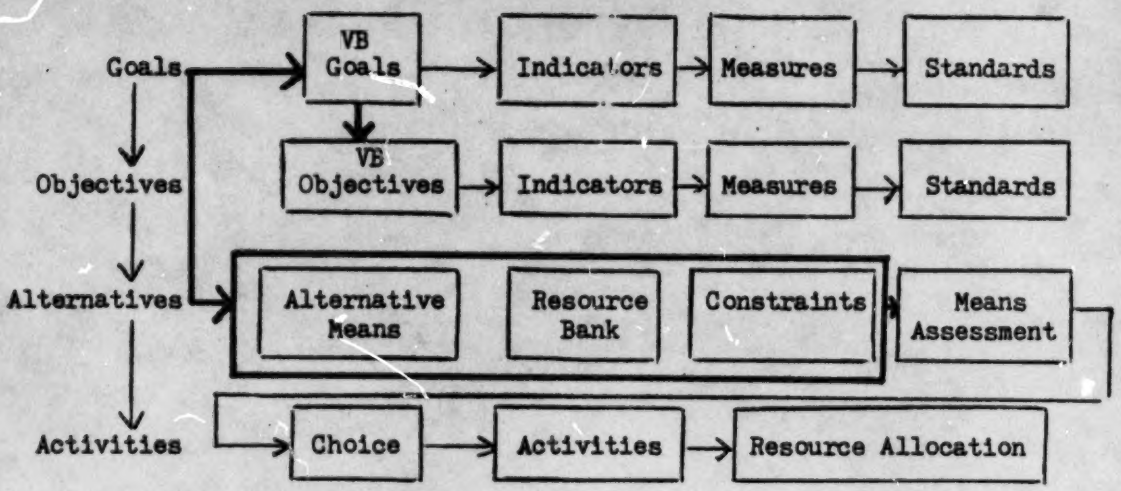

Figure 3. The Values Based Objectives (VBO) Planning System Layout

The four basic elements that I have said should be included in any good organizational plan, the Plan for Success, the Plan for Evaluation, the Plan for Implementation and Operation, and the Plan for Establishment, can be found in the layout in Figure 3. Figure 4 identifies these four components of the plan.

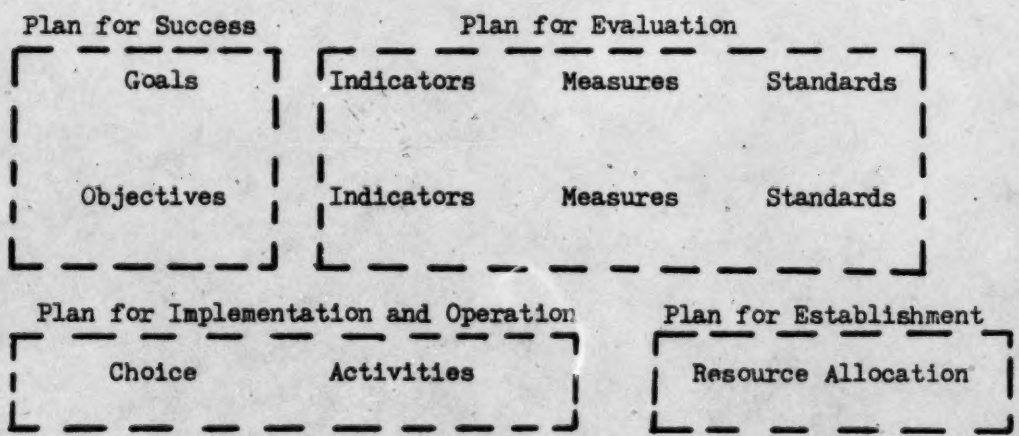

Figure 4. The four basic elements of an organizational plan

You will notice that the steps of the Alternatives Level, the

specification of Alternative Means, Resources, and Constraints, and the Means Assessment are not included as basic elements of a plan. They are essential steps in systematic planning, however, and should be included in the "layout." They provide a ready source of ideas as unexpected circumstances require the plan to be modified in implementation and operation.

I might comment that in the Alternatives Level of the VBO Planning System, the administrative processes of analyzing, researching, and decision making take the limelight. It is obvious, however, that all three processes enter into every step in the planning process. Analysis, research, and decision making are basic assumptions to the concept of "planning." They are implicit in every step of all planning systems, and are explicit in most systems. They are essential inputs into the planning process, but are not elements of "a plan." As I proposed above, all four processes are basic to administration; they are distinguishable by their product, but not separable in process. They interact continuously.

Steps in Systematic Planning

Systematic planning follows orderly steps and establishes specific relationships. One of the most important characteristics of systematic palnning is that it can be checked out for clarity of thinking; it can be "proofed" in a sense. It is for this reason, for the purpose of "proofing" or checking out the rational development of a plan, that planning systems are represented visually. The planner should be able to check out his work by reading backwards or forwards through the plan as it is pictured. Each piece of the plan is an integral part of the whole, and the whole is expressed succinctly in the goals and objectives stated.

I reported above that most descriptions of the planning process include similar sets of steps. The steps specified below are represented in the VBO Planning Model on page 19. They will be discussed in the following pages.

1. Plan for Success

   1.1 State your goals clearly as values to be aimed for. Each goal will be developed as a project or unit plan.

   1.2 Describe the first goal as a set of objectives, also in terms of values to be aimed for. Your goals and objectives are your criteria of success.

   1.3 Repeat 1.2 for each goal.

2. Plan for Evaluation

   2.1 Specify the criterion indicator for the project goal and for each objective. Criterion indicators are clues to success, bases upon which the project will be judged effective or non-effective. Criterion indicators are frequently behaviors, since behaviors are the clearest indicators of whether we have achieved our valued objectives.

   2.2 Specify the measure to be used (records, tests, judgments) for each criterion indicator, and the basis of quantification (percentage, rate, number, ratio.)

   2.3 Specify the standard you will set for each criterion indicator (90%, 3 per day, 100 days.)

3. Consider Alternative Means

   3.1 Specify at least 4 possible Alternative Means for achieving the project goal. By requiring of yourself at least 4 Alternative Means, you force yourself into non-traditional possibilities, look at new ways of accomplishing desired ends.

   3.2 Specify the resources that can be made available for the project--the "resource bank account" for that project. Such resources include personnel time, space, equipment, materials and supplies.

   3.3 Specify the constraints that may affect the success of the project.

   3.4 Assess (judge) each Alternative Means listed
   --for probability of success in achieving objectives
   --for feasibility.

4. Plan for Implementation and Operation

   4.1 Choose the Means to be implemented for the project--generally the Alternative with the highest probability and feasibility rating.

   4.2 Specify all activities necessary to put the chosen means into operation on day 1.

   4.3 Specify all activities necessary for continuing operation of the project (planning, coordinating, collecting evaluation data, assessing, communicating.)

5. Plan for Establishment

5.1 Allocate resources from the project resource bank to each activity listed (personnel time, space, equipment, materials and supplies.)

Plan for Success

Specifying the Goals and Objectives of any project in terms of values is the key to planning for quality. The goal statement of a project is the statement of purpose, of the quality result desired, the statement of the whole. It expresses the value the whole will have for the people concerned if the project is successful. The Goal is the kernel from which both the plan and the project develop, and it is also the tuning fork against which is tested every objective, every activity, every alternative, every standard. How well is this objective, this activity, this alternative attuned to the result desired?

Having arrived at a clear statement of the result to be achieved, the goal, planning can move smoothly and rationally. Moreover, implementation and operation can adapt readily to unforseen circumstances; direction is clear and the end result desired is clear. It is like heading for a familiar point in a city through unfamiliar streets. The end point is known, and the direction is known. Winding or unexpected streets present only minor delays.

The goal is the lens through which the project is brought into focus from the broader system.

In organizational literature the terms "goals" and "objectives" are sometimes used interchangeably; at other times they are used precisely but with opposite meanings. Kaufman, for example defines "goals" as statements of broad general aims, and "objectives" as statements of more narrow, specific aims (Kaufman, 1972, p. 144.) Immegart and Pilecki define them as does Kaufman (Immegart and Pilecki, 1973, p. 158.)

On the other hand, Manning uses the terms with exactly the opposite meanings, "objectives" takes on the broad sense, and "goals" the specific, immediate sense (Manning, 1970, p. 16.) Alioto and Jungherr use "objectives"

for all levels of abstraction or generality (Alioto and Jungherr, 1971, pp. 53-54.)

Common useage, it is clear, accepts the first pattern. It seems reasonable and useful to follow common sense meanings of words in the behavioral sciences, at the same time defining and using the terms precisely.

In this paper, therefore, goals are defined as broad, general values held, stated as the desired results or outcomes of an activity or operation. Objectives are defined as specific valued aspects of a given goal, also stated as desired results or outcomes.

If a given goal is "Students will be well educated academically," the objectives tell what "well educated academically" means or includes--"Well educated in maths," "in the use of language," "in the history of man and of one's country." The goal means or includes different aspects in different systems, in different areas of a community, at different levels of age or ability. But the goal is appropriate broadly and generally.

"Students will be socially responsible," is a universally accepted educational goal. But "socially resposible," has different meanings from one culture to another, from one community to another, from one school to another. Objectives state the "pieces of meaning" of a goal appropriate to the specific situation where the project or program or system is found.

That is to say simply, there is no universal meaning for universal values. The meaning of values is specific to the context (community, culture, society.) Objectives make clear what each universal value goal means--the set of things that are parts of the value held where the planning happens to be taking place.

Three Questions about Goals and Objectives

At this point there are three questions about goals and objectives that should be considered. I will deal with each in the next few pages.

1. How does it happen that the terms goals and objectives are used with opposite meanings in organizational literature.

The answer to this question will help put any planning system into perspective.

2. Aside from the philosophical bias which I have exposed above, why should objectives and goals express values, not behaviors. How does the expression of objectives as values affect the administration of a plan, a project, program, or system.
3. There are "rules" for writing behavioral objectives. What are the "rules" for writing value based goals and value based objectives.

CONFUSING MEANINGS OF "GOALS" AND "OBJECTIVES"

I proposed earlier that there are three general "scopes" of organizational planning, system, program, and project. I proposed further that if planning is systematic, all projects fit rationally into a program plan and all programs fit rationally into the system plan. It is by means of goals and objectives that such unity of purpose is created. This is the very simple and logical reason why the terms "Goals" and "Objectives" are used with opposite meanings.

System goals are broad statements. System objectives identify the important aspects of a particular goal to be focused on specifically. Each system objective, therefore, becomes a program goal.

In turn the program goal becomes the overall statement of results desired for that program--that particular piece of the system. A set of program objectives describes the program goal.

And of course each program objective can become a project goal. The scope continues to narrow to units, to lessons. So we return to our camera analogy. Figure 5 illustrates this understandable confusion. A desired result may be "narrow and specific" (an objective) in the context of the system but "broad and general" (a goal) in the context of a program.

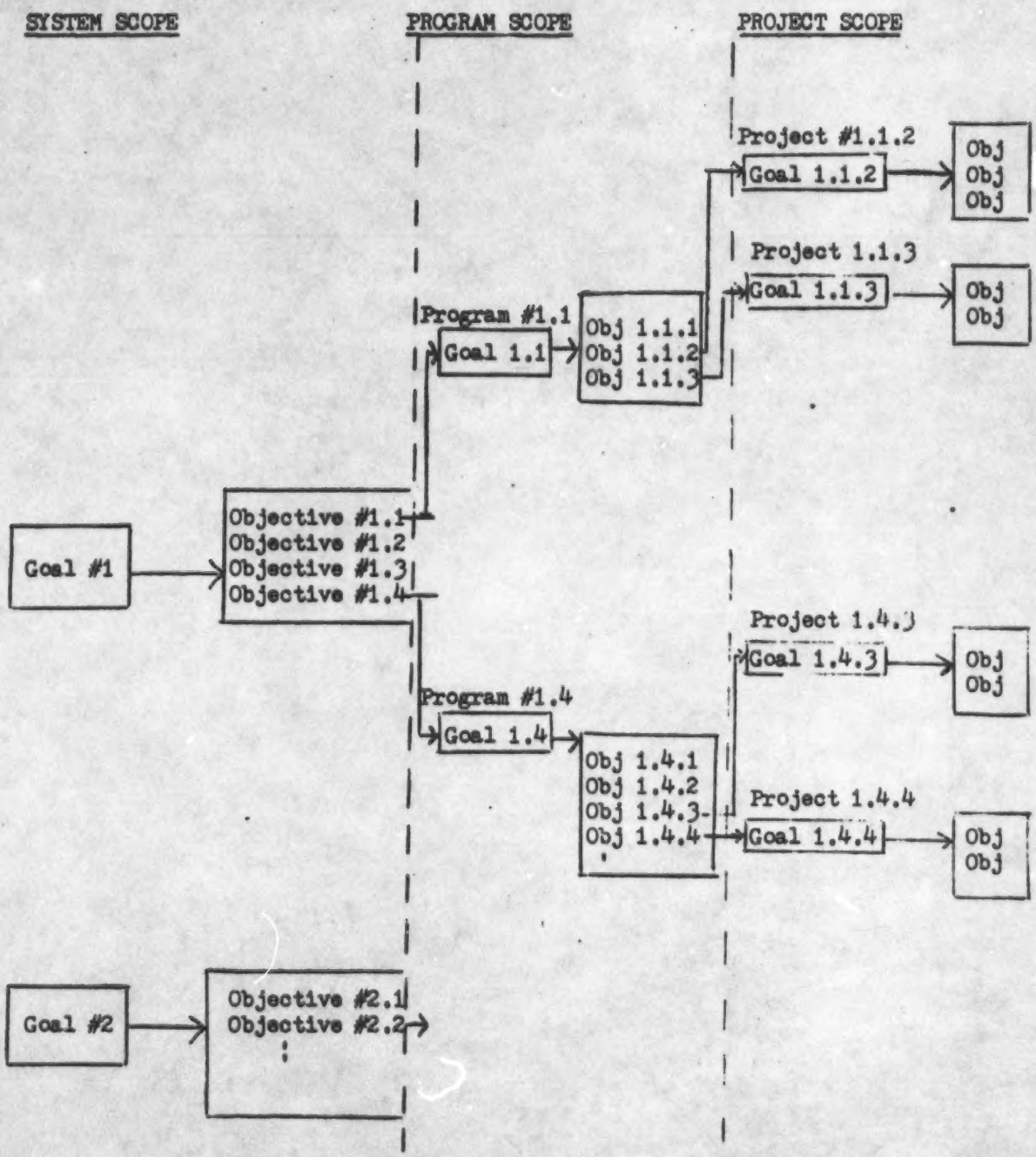

Figure 5. "Objective" or "Goal" depends on scope

And equally a desired result can be an objective in the context of a program, but a goal in the context of a project. Every result desired and aimed for can be seen as broad and general, or as narrow and specific, depending on the scope of the operation or event being planned.

The relationship of project, program, and system pictured in Figure 5 is appropriate to all planning systems. It is through the relationship between goals and objectives that particular projects, units, departments, or programs establish or enhance the "system," the organization.

The unity of purpose of our education systems thus depends upon being sure that our goals and objectives express clearly the values we hold.

VALUE BASED OBJECTIVES OR BEHAVIORAL OBJECTIVES

Much has been said in educational and organizational literature about behavioral objectives. It has been asserted that objectives should be stated in terms of specific behaviors desired, with the level at which they should be performed clearly specified. A good case has been made on the bases of clarity, objectivity, and fairness to the persons concerned.

In planning for quality education, however, Goals and Objectives should be stated qualitatively, not quantitatively; they should be value based, not behavior based. Behaviors are clues to whether our objectives or goals, our values, have been achieved, but behaviors are not our objectives.

Criticisms leveled at behavioral objectives have always been of the "yes, but..." variety. Behavioral objectives leave us always with the uneasy knowledge that they are not appropriate to the specific case. If we say, for example, "All fourth graders will be reading at the 4.0 level on the _____ reading test," we have to say to ourselves, "yes, but ..." that is the minimum level we want, or there are exceptions, of course. We really want fourth graders to be reading well (for their ability, background, etc.)

It is impossible to state a behavioral objective appropriate to all members of any group without expressing it at a level that the lowest member of the group can attain. The reason this is so is that our objectives are program or project objectives; they are the criteria by which we judge the success of our program, not the criteria by which we judge the success of individual students. It might be appropriate to write behavioral objectives for each student, "J.J. will be reading at the 4.0 level ...," "R.S. will be reading at the 3.6 level ...," "T.F. will be reading at the 6.2 level...." Teachers do that intuitively when they say to themselves, "J.J. is doing well this year, s/he is at 4.0; I'm really proud of R.S., s/he is at 4.0; T.F is slipping s/he is only at 5.7 ---all in all, though, 'we' are doing well." The objective is "reading well" and professional judgment tells us what that means in individual cases. "Well" is not "motherhood and apple pie" it is the appropriate criterion for professional judgment.

The administrative difficulty inherent in behavioral objectives is that they include in the statement of objective four different elements:

1.	The goal behavior valued	- Reading
2.	The behavioral indicator or clue to success to be used	- Performance on a reading test
3.	The instrument to be used to measure success	- Specific test to be used
4.	The standard of behavior that will be accepted as success	- All students and 4.0 level

You can see that the VBO Planning Model, page 19, proposes that those four elements be stated separately.

1.	End result valued	- Reading well	GOAL
2.	Behavioral indicator	- Performance on test or Performance in class or ---out of class	INDICATOR
3.	Instrument	- Specific test, or set of judgments	MEASURE
4.	Standard	- All s's--4.0, or	

It is the standard of success that must be particular to the level of the students (perhaps also the specific test to be used, of course.) But the overall goals and objectives are appropriate to all. If our goals and objectives are value based, stated qualitatively, we can spend our planning time where it is useful, on the questions "What test (measure) shall we use?" and "What shall we set as a standard?" We only spend time "clarifying (or restating)" our goals and objectives if we no longer want students to be "reading well"-highly unlikely.

When I propose to students or colleagues the argument that objectives should be stated as values and Indicators and Standards as behaviors, they often ask if that is not just a semantic point. That is a difficult question to answer, because I consider myself a behavioral scientist, an observer of behaviors.

The fact is that we must rely on observations of behaviors to make professional judgments. And pupils and parents have the right to know which behaviors form the bases of our judgments. In the past educators have often made value judgments without identifying the behavioral bases of those judgments (good citizen, creative work, respectful, understands concepts.) We do owe it to ourselves and to our students to state behavioral standards.

I find myself coming back, however, to the simple fact that behaviors are not our objectives. Performance on a reading test is a good general Indicator of "reading well," but it is not the only indicator, it may not be the best indicator, and it cannot be a uniform indicator. If the norm is 4.0 level, the standard for the class as a group could be 75%, or 95%, or 50% of the pupils at or above 4.0 level. The objective "reading well" is a program objective; the standard is a program standard. We would not judge our reading program "a failure" if one student were at the 3.9 level! So "All students at or above 4.0 level" is either not sufficient as an

objective, being too low, or is not true, since we will allow ourselves some leeway in making our judgments, which is precisely the role of "values," to state goals generally enough that variability may be accepted. Objectives stated as values encourage us to consider individual differences in our plans and in our evaluations; standards set behaviorally encourage us to be realistic and equitable.

There is a second confusion that often enters into behavioral objectives and causes administrative problems. An objective may be stated, "all students will submit 300 words of written composition per week." There is the obvious point, of course that "300" is no magic number; the desired result is expressed in quantitative rather than qualitative terms.

Aside from the limitation of its quantitative form, however, the statement is a Means statement, not an Objective or Goal. Writing 300 words per week is one possible means to the end of "good writing." It is only one possible Alternative Means and should be judged along with others in the Means Assessment step of the planning process.

If Means have slipped into our goals and objectives statements, it is easy to begin to think of them as ends in themselves. This leads us to attributing a wide range of values to particular Means, with the result, perhaps, that we become frustrated and discouraged when all values are not achieved by those means. We may say our objective is "to carpet the classroom floors." If we are asked "why," we may say, "to make a homelike atmosphere," "To make the children feel comfortable," "To save maintenance time and money," "To teach the children proper care of the classroom," whatever. Those answers more nearly express our values, our real goals and objectives. Carpeting the floors may be a good Means for achieving any or all of those values, but we really want the carpeting to affect something--attitudes, feelings, cost, and there may be better ways to achieve those ends.

Administratively, then, goals and objectives stated as values free us to use our palnning time productively. Goals and objectives are quite general, and do remain relatively constant over time. Our measures and Standards of success, and our Means for achieving success change to meet changing circumstances.

RULES FOR WRITING VALUES BASED GOALS AND OBJECTIVES

Behavioral Objectivists have formulated careful rules for writing good Objectives. In the previous pages I have taken issue with most of those rules. I have implied that there are specific criteria for judging "good" Values Based Goals and Objectives statements. I will try to make the rules for writing Values Based Objectives clear by expressing them in two ways: first, what Objectives or Goals should express; and second, types of words and phrases that should not be used in Goal statements or Objectives statements.

To preview, the rules for writing Values Based Goals and Objectives statements are as follows:

1. Goals and Objectives should express attitudes, beliefs, and achievements that are valued, not behaviors.
2. They should express values qualitatively, as constants and general principles, not quantitatively as specifics.
3. They should be expressed in terms of products, or results desired, not in terms of processes or means.

Rule 1. Goals and Objectives should state attitudes, beliefs, and achievements you value, because they are the ends or results you aim for. They should not state behaviors, because behaviors are only clues to, or indicators of, the attitudes, beliefs, and achievements you value.

Rule 2. Goals and Objectives should express values qualitatively, not quantitatively. Values expressed qualitatively are constants.

They are general and generalizable. Values are the basic criteria by which we judge a broad range of specific cases. They are the body of knowledge basic to our professional expertise. We may not be able to measure such values as responsibility and creativity, but we are professionally trained to make educated judgments about whether students are, or are not responsible and creative. We can, we must, and we do make judgments. We make them on the basis of our values, and use behaviors as clues.

Goals and Objectives stated quantitatively are always specific to narrow ranges of cases. They apply to narrow ranges. To aim for no more than 3 absences per pupil, completely overrides professional judgment of sufficient cause. Degrees, percentages, and ratios are the tools we employ to set standards, not goals. An average of no more than 3 absences per pupil may be a rational standard for a group. It allows for normal distribution of variable causes, and leaves the educator free to employ professional judgment in interpreting the value of the number of absences in the case of a specific pupil.

Rule 2a. Never use words such as "improve," "increase," "develop," "more," "less," "better" in goals and objectives statements. Such words are quantitative. Moreover, they imply pre-judgment. To aim for "greater" respect for property implies that the group has already been judged on the general value and found wanting. Such words imply that measures have been made, or a point on a scale has been established. They generally do not reveal the instrument or method used for pre-measurement. Therefore, they place no constraints on the instrument or means of post-measurement and provide no valid basis of comparison for judgment regarding change.

Rule 3. Goals and Objectives should be written in terms of the product to be achieved, not the process of achieving or means of producing. Product is the desired result. Process is the means or method of accomplishing.

Rule 3a. Verbs should be appropriate to end products, not to processes. "Will teach," "will encourage," "will develop," are process verbs, "Will learn," "will know," "will understand," "will be able," are product verbs.

EXAMPLES

RIGHT	WRONG
Rule 1. Goals and Objectives should state attitudes, beliefs, and achievements you value.	
Value Based:	Not Value Based:
Students will enjoy good books. (An attitude and value we aim for)	Students will read 2 unassigned library books per term. (A behavioral clue. It may be evidence of different attitudes--desirable or not)
Students will be able to express themselves creatively in writing. (An achievement we value)	Students will write one Haiku poem. (A behavioral clue)
Students will respect each other. (An attitude we value)	Students will never interrupt other students in recitation. (A behavioral rule, a clue, but may be evidence of apathy, fear, etc.)
Rule 2. Goals and Objectives should express values qualitatively not quantitatively.	
Value Expressed Qualitatively	Value Expressed Quantitatively
Students will read well.	Fourth grade students will read at the 4.0 level or better. (defines "well" quantitatively.)
Students will be responsible citizens.	Students will have no more than (2 tardys) (3 absences) (1 late book.) (Quantitative--appropriate for Standard)
Teachers will keep abreast of professional developments.	Teachers will (complete one professional course per year) (attend 3 professional workshops.)

Rule 2a. Never use words that imply pre-measurement on some quantitative scale (increase, more, less, better) in VB Goals and Objectives.

No pre-measurement implied	Pre-measurement implied
Teachers will enjoy their work.	Teachers will be less unhappy.
Students will have appropriate job skills.	Students will be better trained for jobs.

Rule 3. VB Goals and Objectives should be written in terms of product, not process (means.)

Product terms	Process terms
Students will be happy in school.	We will provide students with a pleasant atmosphere.
Parents will understand the school program and codes.	We will present seminars for parents on school programs and codes.

Rule 3a. Verbs should be appropriate to product, not process.

Product verbs	Process verbs
Students will have good maths skills.	Provide students with appropriate maths tools.
Students will respect others, peers, adults.	Teach students respect for peers.

Summary and Consideration of Steps to Follow

I have repeatedly said that Values Based Goals and Objectives are the key to the quality of learning and the quality of life in our education systems. Our business is the business of professionals. We do have a body of general principles, upon which we base judgments and choices. We have a body of ethical principles, a body of social and psychological principles, and a body of content principles. We do not have to engage in the question of how well developed those bodies of knowledge are--100 years ago doctors were still "bleeding" patients for illnesses.

The major criteria of a profession are that its business affects in large degree the lives and welfare of its clients, and that it rests on a body of principles, not rules. A profession requires the continuous application of educated judgment to specific cases for the benefit of clients who have put their lives and welfare in another's hands.

When we express our goals and objectives in terms of our values we are clarifying for ourselves and others the basic academic, social, and ethical principles upon which we will act and the criteria by which we will make choices and judgments.

I have gone into detail about how to go about expressing clearly Value Based Objectives and Goals. I have noted that this step is the first step in planning for quality education. I call this step Planning for Success, because goals and objectives are the description of what success means to those people intimately concerned in any system.

All other steps in planning involve consideration of goals and objectives. All elements of a plan must reflect, expand on, and operationalize the values expressed in the goals and objectives stated.

There are systematic steps by which the Plan for Evaluation, the Alternative Means and Means Assessment, the Plan for Implementation and Operation, and the Plan for Establishment can be developed rationally from

the Plan for Success. To go into detail in regard to all elements of an Educational Plan, a "layout," as we have called such a plan, would be too extensive for the present paper. I will leave it at this for the moment.

Values Based Goals and Objectives are the key to Quality of Learning and Quality of Living in our Education Systems. We cannot achieve the quality of learning and the quality of learning environment we want unless we state our Goals and Objectives clearly and simply as the values we hold in high esteem. Choosing the values we wish to reflect is the Decision making face of the Leadership coin.

Equally we cannot anticipate enjoying the quality of learning and living we hope for unless we prepare carefully for achieving those Goals and Objectives. Preparing careful, rational models of our values as objectives and expressing them clearly in plans for implementation, operation, and evaluation is the Planning face of the Leadership coin.

NOTES

1. Statements considered in the analysis cited:

PLANNING:

Kaufman (1972, p. 6)
Newman (1950, pp. 88-89): Analytical planning
Carlson (1961, p. 34): Management planning
Smalter (in Cleland and King, 1969, p. 155, Figure 16-12) Project Exploratory planning
Simon (1944, p. 26)

PROBLEM SOLVING:

Kaufman (1972, p. 143)
Umstatted (1953 in Dill, 1964)
Thomas (1971, in NSSE Yearbook p. 243)
Lynn (in Cleland and King, 1969, p. 230)
Smalter (in Cleland and King, 1969, p. 154)
Havelock (1974, p. 2)

DECISION MAKING:

Griffiths (1959, p. 94)
Dill (1964, p. 201)
Simon (1960, p. 2)
Tannenbaum (1950, p. 410)
Blankenship and Miles (1968, p. 107)
Marshall (1970, pp. 11-12)
Drucker (from Effective Executive, prior to publication)
Mintzberg et al (1976, pp. 252-263)

SYSTEMS ANALYSIS:

Kaufman (1972, pp. 13-18)
McManama (1971)
Lynn (in Cleland and King, pp. 216-231)
Quade (in Cleland and King, 1969, pp. 195-6)

CHANGE STRATEGIES:

Clark and Guba (in Hull 1967, pp. 35-36) Change model
Bushnell (1971, p. 10) Change strategy
Stuffelbeam (1968) CIPP
Lynn (in Cleland and King, 1969, p. 230) Staff research, Table 21-1
Lynn (in Cleland and King, 1969, p. 230) Estimate of situation, Table 21-1
Smalter (in Cleland and King, 1969, p. 154) Operations Research, Table 16-6
Smalter (in Cleland and King, 1969, p. 154) Systems Engineering, Table 16-6
Kaufman (1972, pp. 13-24) Management process

THINKING:

Dewey (1933, pp. 106-116) Thinking

2. Brackets indicate that specific statements of various authors have been subsumed into one general activity for this analysis. The terms are not, of course, interchangeable either in the works of the authors represented or in the thinking of this author. They have been grouped here because they seem to represent at least similar points or stages in an overall process. That is, the various authors generally describe similar activities proposed in similar order.

3. An administrative model of the organization is the subject of a paper presented elsewhere (Burns, 1981.) That paper presents an analysis of conditions, condition criteria, functions, processes, principles, and means fundamental to organizational vitality.

4. The distinction Mintzberg makes between intended strategy and realized strategy as revealed in case studies of sets of decisions made by three organizations (Mintzberg, 1976, p. 2) further illustrates the distinction being made between a plan as a "model," a set of hypotheses, and a plan as a "set of decisions" as proposed by Anderson and Bowman.

5. The diversity of such considerations is overwhelming. See, for example, Tannenbaum and Massarik, 1950; Rossi, 1957; Griffiths, 1959; Fogarty and Gregg, 1966; Bridges, 1967; Hodgson, 1968; Blankenship and Miles, 1968; Schmuck and Blumberg, 1969; Blumberg, Wayson and Weber, 1969; Brown, 1970; Masse, 1970; Marshall, 1970; Mulder, 1971; Alutto and Belasco, 1972; Hamilton, 1972; Mott, 1972; Roos, 1972; Krouse, 1972; White and Ruh, 1973; Pfeffer and Salanik, 1974; and Conway, 1976.

6. I have distinguished between direction and legislation as functions, and and planning and decision making as processes, generally describable as steps or series of actions which tend to maximize the probability of identifiable "outputs." A case for such distinction has been presented elsewhere (Burns, 1981.)

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